(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization**

International Bureau



(43) International Publication Date 29 July 2004 (29.07.2004)

PCT

(10) International Publication Number WO 2004/064406 A1

(51) International Patent Classification7: 7/68, H04B 1/66

H04N 7/32,

(74) Agents: TRIPOLI, Joseph, S. et al.; THOMSON Li-

(21) International Application Number:

PCT/US2003/021515

(22) International Filing Date: 10 July 2003 (10.07.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/439,185

10 January 2003 (10.01.2003)

(71) Applicant (for all designated States except US): THOM-SON LICENSING S.A. [FR/FR]; 46 Quai A. Le Gallo, F-92648 Boulogne (FR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): GOMILA, Cristina [ES/US]; 25 C Chestnut Court, Princeton, NJ 08540 (US).

censing, Inc., 2 Independence Way, Suite 2, Princeton, NJ 08543 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,

MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,

SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,

GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW. (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,

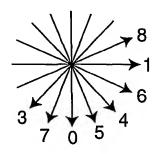
Published:

with international search report

[Continued on next page]

(54) Title: DEFINING INTERPOLATION FILTERS FOR ERROR CONCEALMENT IN A CODED IMAGE

MODE	INTERPOLATION DIRECTION
0	VERTICAL
1	HORIZONTAL
2	DC
3	DIAGONAL DOWN-LEFT
4	DIAGONAL DOWN-RIGHT
5	VERTICAL RIGHT
6	HORIZONTAL DOWN
7	VERTICAL LEFT
8	HORIZONTAL UP



INTRA 4x4 PREDICTION MODE DIRECTIONS

(57) Abstract: Concealment of errors in a coded image (100) occurs by first selecting an intra-prediction mode in accordance with the coding of the image. The selected intra-prediction mode, while ordinarily used to specify the direction for obtaining a coding prediction value, also serves to specify the direction for obtaining estimated values for error concealment. An interpolation filter defines the manner of obtaining estimated pixel values along the direction specified by the intra-prediction mode. Like the intraprediction mode, the interpolation filter is derived in accordance with the coding of the image. Concealment of the image is achieved using the estimated values obtained in the manner prescribed by the interpolation filter.